AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows, substituting any amended claim(s) for the corresponding pending claim(s):

1.   (Previously Presented) An apparatus for generating a hybrid speech model associated to a given speech element, said hybrid speech model being suitable for use by a speech recognition device during speech recognition, said apparatus comprising:

-       an input for receiving an input signal derived from a spoken utterance that contains at least one speech element that potentially matches the given speech element;

-       a model group associated to the given speech element, said model group comprising a plurality of speech models, each speech model of said plurality of speech models being a different representation of the given speech element;

-       a processing unit coupled to the input for processing the input signal and the model group to generate a hybrid speech model associated to the given speech element, said hybrid speech model being a weighted combination of speech models in said plurality of speech models effected on the basis of the input signal derived from the spoken utterance;

-       an output for releasing a signal indicative of said hybrid speech model associated to the given speech element in a format suitable for use by a speech recognition device.

2. (Original) An apparatus as defined in claim 1, wherein the given speech element is an element selected from the group consisting of phones, diphones, syllables and words.

3. (Original) An apparatus as defined in claim 2, wherein said input signal derived from a spoken utterance is indicative of a speaker specific speech model associated to the at least one speech element.

4. (Original) An apparatus as defined in claim 3, wherein said hybrid speech model is weighted toward the speaker specific speech model.

5. (Original) An apparatus as defined in claim 4, wherein said hybrid speech model is derived by computing a linear combination of the speech models in said model group.

6.   (Original) An apparatus as defined in claim 5, wherein said input is a first input and wherein said input signal is a first input signal, said apparatus further comprising:

a)   a second input for receiving a second input signal conveying a data element identifying the given speech element;

b)   a database of model groups comprising a plurality of model groups, each model group being associated to a respective speech element, each model group comprising a set of speech models;

said processing unit being further operative for extracting from said database of model groups a certain model group associated to the data element received at said second input identifying the given speech element.

7.   (Previously Presented) A method for generating a hybrid speech model associated to a

given speech element, said hybrid speech model being suitable for use by a speech recognition

device during speech recognition, said method comprising:

-       receiving an input signal derived from a spoken utterance that contains at least

one speech element that potentially matches the given speech element;

-       providing a model group associated to the given speech element, said model

group comprising a plurality of speech models, each speech model of said

plurality of speech models being a different representation of the given speech

element;

-       processing the input signal and the model group to generate a hybrid speech

model associated to the given speech element, said hybrid speech model being

a weighted combination of speech models in said plurality of speech models

effected on the basis of the input signal derived from the spoken utterance;

-       releasing a signal indicative of said hybrid speech model associated to the given

speech element in a format suitable for use by a speech recognition device.

8.   (Previously Presented) A computer readable medium comprising a program element

suitable for execution by a computing apparatus for generating a hybrid speech model

associated to a given speech element, said hybrid speech model being suitable for use by a

speech recognition device during speech recognition, said computing apparatus comprising:

-     a memory unit for storing a model group associated to the given speech element,

said model group comprising a plurality of speech models, each speech model

of said plurality of speech models being a different representation of the given

speech element;

-     a processor operatively connected to said memory unit, said program element

when executing on said processor being operative for implementing:

-     an input for receiving an input signal derived from a spoken utterance that

contains at least one speech element that potentially matches the given

speech element;

-     a processing unit coupled to the input for processing the input signal and

the model group to generate a hybrid speech model associated to the

given speech element, said hybrid speech model being a weighted

combination of speech models in said plurality of speech models effected

on the basis of the input signal derived from the spoken utterance;

-     an output for releasing a signal indicative of said hybrid speech model

associated to the given speech element in a format suitable for use by a

speech recognition device.

9.   (Previously Presented) An apparatus for generating a complex speech model associated

to a given speech element, said complex speech model being suitable for use by a speech

recognition device during speech recognition, said apparatus comprising:

-       an input for receiving an input signal derived from a spoken utterance that

contains at least one speech element that potentially matches the given speech

element;

-       a model group associated to the given speech element, said model group

comprising a plurality of speech models, each speech model of said plurality of

speech models being a different representation of the given speech element, said

model group comprising two sets of speech models namely a first set having

speech models of a first type and a second set having speech models of a second

type, each speech model of a first type in said first set being associated to a

speech model of the second type in the second set;

-       a processing unit coupled to the input for:

a)   processing the input signal and the model group to generate a hybrid

speech model associated to the given speech element, said hybrid speech

model being a weighted combination of speech models of the first type in

said plurality of speech models effected on the basis of the input signal

derived from the spoken utterance;

b)   processing the hybrid speech model to generate a complex speech model

associated to the given speech element, said complex speech model being

a weighted combination of speech models of the second type in said

plurality of speech models;

- an output for releasing a signal indicative of said complex speech model

associated to the given speech element in a format suitable for use by a speech

recognition device.

10. (Previously Presented) An apparatus as defined in claim 9, wherein any speech model

of a second type is indicative of a speech model having a higher complexity than a speech

model of a first type to which the respective speech model of a second type is associated.

11. (Original) An apparatus as defined in claim 10, wherein the given speech element is

indicative of a data element selected from the set consisting of phones, diphones, syllables and

words.

12. (Original) An apparatus as defined in claim 11, wherein said input signal derived from

a spoken utterance is indicative of a speaker specific speech model associated to the at least one

speech element.

13. (Original) An apparatus as defined in claim 12, wherein said hybrid speech model is

weighted toward the speaker specific speech model.

14.   (Original) An apparatus as defined in claim 13, wherein said hybrid speech model is derived by computing a linear combination of the speech models of the first type.

15.   (Original) An apparatus as defined in claim 14, wherein said linear combination is a first linear combination and is characterized by a first set of parameters indicative of weights associated to speech models of the first type, said complex speech model being derived by computing a second linear combination of the speech models of the second type, said second linear combination being characterized by a second set of parameters indicative of weights associated to speech models of the second type.

16.   (Original) An apparatus as defined in claim 15, wherein said first set of parameters and said second set of parameters are indicative of substantially same weights.

17.   (Original) An apparatus as defined in claim 10, wherein said input is a first input and wherein said input signal is a first input signal, said apparatus further comprising:

a)   a second input for receiving a second input signal indicative of a data element identifying the given speech element;

b)   a database of model groups comprising a plurality of model groups, each model group being associated to a respective speech element, each model group comprising two sets of speech models namely a first set having speech models of a first type and a second set having speech models of a second type, each speech model of a first type in said first set being associated to a speech model of the second type in the second set;

said processing unit being further operative for extracting from said database of model groups a certain model group associated to the data element received at said second input identifying the given speech element.

18.   (Previously Presented) A computer readable medium comprising:

a first data structure for storing a plurality of model groups, each model group being associated to a respective speech element in a phonetic alphabet, each model group comprising a plurality of speech models, each model group being suitable for use by a processing device; and

a second data structure for storing a hybrid speech model associated to a given speech element, said hybrid speech model being a weighted combination of speech models of the first type in said plurality of speech models effected on the basis of an input signal derived from a spoken utterance that contains at least one speech element that potentially matches the given speech element.

19.   (Original) A computer readable medium as defined in claim 18, wherein the given speech element is indicative of a data element selected from the set consisting of phones, diphones, syllables and words.

20.   (Previously Presented) A computer readable medium as defined in claim 19, wherein

each model group comprises two sets of speech models namely a first set having a plurality of

speech models of a first type and a second set having a plurality of speech models of a second

type, each speech model of a first type in said first set being associated to a speech model of the

second type in the second set, each speech model of the second type being indicative of a speech

model having a higher complexity than a speech model of the first type to which the speech

model of the second type is associated.

21.   (Previously Presented) A speech recognition system comprising:

-    an input for receiving an input signal indicative of a spoken utterance that is indicative of at least one speech element;

-    a first processing unit coupled to said input operative for processing the input signal to derive from a speech recognition dictionary at least one speech model associated to a given speech element that constitutes a potential match to the at least one speech element;

-    a second processing unit coupled to said first processing unit for generating, using a predefined weighting constraint, a modified version of the at least one speech model on the basis of the input signal;

-    a third processing unit coupled to said second processing unit for processing the input signal on the basis of the modified version of the at least one speech model to generate a recognition result indicative of whether the modified version of the at least one speech model constitutes a match to the input signal;

-    an output for releasing a signal indicative of the recognition result.

22.   (Original) A speech recognition system as defined in claim 21, wherein said first processing unit is operative for generating a speaker specific speech model derived on the basis of the input signal, the speaker specific speech model being indicative of the acoustic characteristics of the least one speech element.

23.   (Original) A speech recognition system as defined in claim 22, wherein said modified version of the at least one speech model is indicative of a hybrid speech model associated to the given speech element.

24.   (Previously Presented) A speech recognition system as defined in claim 23, wherein said second processing unit comprises:

-       coupling member for allowing data exchange between the first processing unit and the second processing unit, said coupling member being suitable for receiving the speaker specific speech model derived from the input signal;

-       a model group associated to the given speech element, said model group comprising a plurality of speech models, each speech model of said plurality of speech models being a different representation of the given speech element;

-       a functional unit coupled to the coupling member for processing the speaker specific speech model and the model group to generate the hybrid speech model associated to the given speech element, said hybrid speech model being a weighted combination of speech models in said plurality of speech models effected on the basis of the speaker specific speech model;

-       an output coupling member for allowing data exchange between the second processing unit and the third processing unit, said output coupling member being suitable for releasing a signal indicative of the hybrid speech model associated to the given speech element.

25. (Original) A speech recognition system as defined in claim 24, wherein said hybrid speech model is weighted toward the speaker specific speech model.

26. (Original) A speech recognition system as defined in claim 24, wherein said hybrid speech model is derived by computing a linear combination of the speech models in said group of speech models.

27. (Original) A speech recognition system as defined in claim 24, wherein said coupling member is a first coupling member, said second processing unit further comprising:

a) a second coupling member for allowing data exchange between the first processing unit and the second processing unit, said second coupling member being suitable for receiving a data element identifying the given speech element;

b) a database of model groups comprising a plurality of model groups, each model group being associated to a respective speech element, each model group comprising a set of speech models;

said functional unit being further operative for extracting from said database of model groups a certain model group associated to the data element received at said second coupling member identifying the given speech element.

28.   (Original) A speech recognition system as defined in claim 22, wherein said modified version of the at least one speech model is indicative of a complex speech model associated to the given speech element.

29.   (Original) A speech recognition system as defined in claim 28, wherein said second processing unit comprises:

- coupling member for allowing data exchange between the first processing unit and the second processing unit, said coupling member being suitable for receiving the speaker specific speech model derived from the input signal;

- a model group associated to the given speech element, said model group comprising a plurality of speech models, each speech model of said plurality of speech models being a different representation of the given speech element, said model group comprising two sets of speech models namely a first set having speech models of a first type and a second set having speech models of a second type, each speech model of a first type in said first set being associated to a speech model of the second type in the second set;

- a functional unit coupled to the coupling member for:

    a)   processing the speaker specific speech model and the model group to generate a hybrid speech model associated to the given speech element, said hybrid speech model being a weighted combination of speech models

of the first type in said plurality of speech models effected on the basis of the speaker specific speech model;

b)   processing the hybrid speech model to generate a complex speech model associated to the given speech element, said complex speech model being a combination of speech models of the second type in said plurality of speech models;

-   an output coupling member for allowing data exchange between the second processing unit and the third processing unit, said coupling member being suitable for releasing a signal indicative of the complex speech model associated to the given speech element.

30.   (Previously Presented) A speech recognition system as defined in claim 29, wherein any speech model of the second type is indicative of a speech model having a higher complexity than a speech model of the first type to which the speech model of the second type is associated.

31.   (Original) A speech recognition system as defined in claim 30, wherein said hybrid speech model is weighted toward the speaker specific speech model.

32.   (Original) A speech recognition system as defined in claim 31, wherein said hybrid speech model is derived by computing a linear combination of the speech models of the first type.

33.   (Original) A speech recognition system as defined in claim 32, wherein said linear combination is a first linear combination and is characterized by a first set of parameters indicative of weights associated to speech models of the first type, said complex speech model being derived by computing a second linear combination of the speech models of the second type, said second linear combination being characterized by a second set of parameters indicative of weights associated to speech models of the second type.

34.   (Original) A speech recognition system as defined in claim 33, wherein said first set of parameters and said second set of parameters is indicative of substantially the same weights.

35.   (Previously Presented) An apparatus for generating a hybrid speech model associated to a given speech element, said hybrid speech model being suitable for use by a speech recognition device during speech recognition, said apparatus comprising:

-       means for receiving an input signal derived from a spoken utterance that contains at least one speech element that potentially matches the given speech element;

- a model group associated to the given speech element, said model group comprising a plurality of speech models, each speech model of said plurality of speech models being a different representation of the given speech element;

- means for processing the input signal and the model group to generate a hybrid speech model associated to the given speech element, said hybrid speech model being a weighted combination of speech models in said plurality of speech models effected on the basis of the input signal derived from the spoken utterance;

- means for releasing a signal indicative of said hybrid speech model associated to the given speech element in a format suitable for use by a speech recognition device.

36.   (Previously Presented) A speech recognition system comprising:

-    means receiving an input signal indicative of a spoken utterance that is indicative

of at least one speech element;

-    means for processing the input signal to derive from a speech recognition

dictionary at least one speech model associated to a given speech element that

constitutes a potential match to the at least one speech element;

-    means for generating, using a predefined weighting constraint, a modified

version of the at least one speech model on the basis of the input signal;

-    means for processing the input signal on the basis of the modified version of the

at least one speech model to generate a recognition result indicative of whether

the modified version of the at least one speech model constitutes a match to the

input signal;

-    means for releasing a signal indicative of the recognition result.

37.   (Previously Presented) An apparatus as defined in claim 15, wherein a relationship

between said first set of parameters and said second set of parameters is dependent on a distance

between the hybrid model and the input signal.

38.   (Previously Presented) An apparatus as defined in claim 37, wherein the processing unit

further comprises:

        a fall-back unit conditioning the weighted combination of speech models of the second

type by interpolation to a degree based upon a distance between the hybrid model and the input

signal.